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Papers read before the Society from March 1888 *to February* 1889.

1888.

Mar. 9. Ephemeris of the satellites of *Uranus*, 1888. A. Marth.

On invisible stars of perceptible actinic power. R. de Kövesligethy.

Telegraphic determination of the longitude of Haiphong. W. Doberck.

The total lunar eclipse of January 28, 1888, observed at the Dunsink Observatory. A. A. Rambaut.

Occultations of stars observed at the Liverpool Observatory, Bidston, Birkenhead, during the total eclipse of the Moon, 1888, January 28. J. Hartnup.

Total eclipse of the Moon, 1888, January 28. Rev. S. J. Perry.

Total eclipse of the Moon, 1888, January 28. W. F. Denning.

The lunar eclipse of 1888, January 28–29. Admiral Sir E. Ommanney.

Observations of double stars. W. Doberck.

Occultations observed at Harrow during the total eclipse of the Moon, 1888, January 28. Lieut.-Col. G. L. Tupman.

The total eclipse of the Moon, 1888, January 28. T. W. Backhouse.

On the orbit of 70 (*p*) *Ophiuchi.* J. E. Gore.

Observations of the variable star S (10) *Sagittæ.* J. E. Gore.

Orbit of the double star λ *Ophiuchi.* Professor S. Glasenapp.

Southern double stars. Rev. S. J. Johnson.

Occultations of stars during the total eclipse of the Moon, 1888, January 28, observed at the Armagh Observatory. J. L. E. Dreyer.

Ephemeris for physical observations of the Moon for the nine lunations from April 12 to the end of December 1888. A. Marth.

Photographs of the total lunar eclipse of 1888, January 28. Wm. Peck.

Observations of stars made at Glasgow Observatory in connection with the total eclipse of the Moon of 1888, January 28. Professor R. Grant.

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Observations of stars occulted by the Moon during the eclipse of 1888, January 28, made at the University Observatory, Oxford. Professor C. Pritchard.

Observations of occultations of stars made at the Radcliffe Observatory, Oxford, during the total lunar eclipse of 1888, January 28. E. J. Stone.

April 13. An improved centering tube for reflecting telescopes. E. Crossley.

The Numerical Lunar Theory (extract from a letter to Mr. Knobel). Sir G. B. Airy.

Comet *Sawerthal* 1888 (extract from a letter to Mr. Knobel). David Gill.

On the occultations of Döllen's list of stars, observed at the Royal Observatory, Cape of Good Hope, during the total eclipse of the Moon, 1888, January 28. David Gill.

The total solar eclipse of 1889, January 1, in California; probable meteorological conditions at that time. Professor E. S. Holden.

The new southern comet. Observations made at Grahamstown, Cape of Good Hope. L. A. Eddie.

On the difference of longitude between Mr. Tebbutt's Observatory, Windsor, New South Wales, and the Government Observatories at Sydney and Melbourne. J. Tebbutt.

Sun-spots: their maximum and minimum periods, and their zones of greatest frequency. W. A. Ashe.

Note on *Mars*. R. A. Proctor.

Note on meteoric cosmogony. R. A. Proctor.

Observations of Comet *a* 1888 (Sawerthal), made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Observations of Comet *a* 1888. J. Tebbutt.

Sextant observations of Comet *a* 1888. Capt. J. Clarke.

May 11. Observation of the occultation of *Venus* by the Moon, 1888, March 9. J. Tebbutt.

Occultations of stars observed during the lunar eclipse of 1888, January 28. E. Nevill.

Observations of *Sappho* made at the Cambridge Observatory with the Northumberland equatorial and square-bar micrometer. A. Graham.

Observations of Comet *a* (Sawerthal) 1888, made at Launceston, Tasmania. A. B. Biggs.

Sextant observations of Comet *a* 1888, extracted from the meteorological log kept on board the barque "Atlantic." Captain R. Belding.

On the condition that in a double-image micrometer the value of a revolution of the micrometer screw be independent of the accommodation of the eye. Professor J. A. C. Oudemans.

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Observations of the spectrum of Comet *a* 1888 (Sawerthal), made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Observations of Comet *a* 1888 (Sawerthal), made at the Radcliffe Observatory, Oxford. Communicated by E. J. Stone.

Observations of Comet *a* 1888 (Sawerthal), made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

A discussion of Greenwich observations of north polar distance with reference to the position of the ecliptic, and an annual variation in the value of the co-latitude. W. G. Thackeray.

The positions for 1750·0 and proper motions of 154 stars south of −29° declination, deduced from a revision of Powalky's reduction of the star places of Lacaille's Astronomiæ Fundamenta. A. M. W. Downing.

Remarks on Sir G. B. Airy's Numerical Lunar Theory. Professor J. C. Adams.

Note on a simple method of applying electrical control to the driving clock of an equatorial. A. C. Ranyard.

Note on the total solar eclipse of 1889, December 21–22. J. R. Hind.

June 8. New arrangement of electrical control for driving clocks of equatorials. Sir H. Grubb.

Observations of Comet *a* 1888, made at Windsor, New South Wales. J. Tebbutt.

Observations of *Sappho* ⑧⓪. Professor C. H. F. Peters.

Note on the Glasgow Star Catalogue. Professor R. Grant.

Description of a new observatory for a 3-foot reflector. E. Crossley.

Physical observations of *Saturn* in 1888. T. G. Elger.

On a large prime number. Sir G. B. Airy.

Observations of Comet *a* 1888 (Sawerthal), made at the Radcliffe Observatory, Oxford. Communicated by E. J. Stone.

Note on Comet Sawerthal. Dr. L. Becker.

Observations of Comet *a* 1888 (Sawerthal), made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Note on the visible spectrum of the great nebula in *Orion*. Dr. R. Copeland.

Nov. 9. Observations and elements of Comet Sawerthal, made at the Adelaide Observatory. Communicated by C. Todd.

Observation of the occultation of *Saturn* by the Moon, 1888, June 13. J. Tebbutt.

The ring nebula in *Lyra*. Professor E. S. Holden.

Observations of nebulæ at the Lick Observatory. Professor E. S. Holden and J. M. Schaeberle.

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Results of observations of *Sappho* ⑧⓪, made at the National Astronomical Observatory, Tacubaya, Mexico. Communicated by the secretaries.

Ephemeris of the satellite of *Neptune*, 1888–89. A. Marth.

Ephemerides of the satellites of *Saturn*, 1888–89. A. Marth.

Sextant observations of Comet *a* 1888 (Sawerthal), made on board the ship "Alcester." Captain L. C. Dart.

Observations of *Sappho* ⑧⓪, made with the south equatorial and dark field filar micrometer, at the Melbourne Observatory. Communicated by R. L. J. Ellery.

Results of micrometric comparisons of *Jupiter* and β' *Scorpii* in May 1888. J. Tebbutt.

Height of a Perseid fireball. W. F. Denning.

Note on the occultation of χ *Orionis*, October 24, 1888. Rev. A. Freeman.

On an instrument for measuring the positions and magnitudes of stars on photographs, and for engraving them on metal plates. Isaac Roberts.

Results of recent investigations of stellar parallax made at the University Observatory, Oxford. Professor C. Pritchard.

On a compensating pendulum. R. Inwards.

On the spectra of R *Cygni* and *Mira Ceti*, and some stars with probably similar spectra. Rev. T. E. Espin.

Ephemerides for satellites of *Saturn*, 1888–89 (concluded). A. Marth.

Ephemeris for physical observations of the Moon, 1889, January 1 to April 1. A. Marth.

Observations of Comet *a* 1888 (Sawerthal), made at the Radcliffe Observatory, Oxford. Communicated by E. J. Stone.

A table of the positions of observatories, with constants useful in correcting extra-meridian observations for parallax. Lieut.-Gen. J. F. Tennant.

Observations of Comet *e* 1888 (Barnard), made at Stonyhurst College Observatory. Rev. W. J. Crofton.

Observations of occultations of stars by the Moon taken at Stonyhurst. Rev. S. J. Perry.

Observations of *Jupiter's* satellites made at the Stonyhurst Observatory. Rev. S. J. Perry.

Dec. 14. Observations of comets made at the Orwell Park Observatory in the years 1887–88. J. I. Plummer.

Observations of Comet *a* 1888 (Sawerthal) and *e* 1888 (Barnard), made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Photographs of the nebulæ M 31, *h* 44, and *h* 51 *Andromedæ*, and M 27 *Vulpeculæ*. Isaac Roberts.

On the determination of errors of graduation without cumulative error, and the application of the method to the scales of the Cape heliometer. David Gill.

Height of a Leonid fireball. W. F. Denning.

Photographs of the red end of the solar spectrum, from the line D to the line A. F. McClean.

On the retrogradation of the plane of *Saturn's* ring and of those of his satellites whose orbits coincide with that plane. Professor J. A. C. Oudemans.

Ephemeris for physical observations of *Jupiter*, 1889. A. Marth.

Note on the spectrum of Comet *e* 1888 (Barnard, September 2). Dr. R. Copeland.

Note on the values of the constants for the new Dearborn Observatory. Lieut.-Gen. J. F. Tennant.

Observations of Comet Barnard (1888, September 2), made at the Radcliffe Observatory, Oxford. E. J. Stone.

Note on an apparatus for correcting the driving of the motor clock of large equatorials for long photographic exposures. A. A. Common.

1889.
Jan. 11. Étoiles filantes de la période du 7–11 Août 1886, observées en Italie. F. Denza.

Photographs of the nebulæ in the *Pleiades* and in *Andromeda*. Isaac Roberts.

On methods of printing stellar charts from photographic negatives. Isaac Roberts.

The surface of the Sun in 1888. Rev. S. J. Perry.

Spectroscopic results for the motions of stars in the line of sight obtained at the Royal Observatory, Greenwich, in the year 1888. No. XII. Communicated by the Astronomer Royal.

Observations of occultations of stars by the Moon, and of phenomena of *Jupiter's* satellites, made in the year 1888, at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Observations of Comet *e* 1888, with the transit circle, made at the Royal Observatory, Greenwich. Communicated by the Astronomer Royal.

Ephemeris of the satellites of *Uranus*, 1889. A. Marth.

Observations of the Moon made at the Radcliffe Observatory, Oxford, during the year 1888, and a comparison of the results with the tabular places from Hansen's Lunar Tables. E. J. Stone.

Note on observations of nebulæ spectra at Hurstside Observatory. A. Taylor.

Ephemeris for physical observations of the Moon, 1889, April 1 to June 30. A. Marth.